

Mirati Therapeutics, Inc.  
Form SC 13D/A  
January 30, 2017

**SECURITIES AND EXCHANGE COMMISSION**

**WASHINGTON, DC 20549**

**SCHEDULE 13D**

**(Rule 13d-101)**

**Under the Securities Exchange Act of 1934**

**(Amendment No. 10)\***

**Mirati Therapeutics, Inc.**

**(Name of Issuer)**

**Common Stock, \$0.001 par value**

**(Title of Class of Securities)**

**60468T105**

**(CUSIP Number)**

**David A. Brown**

**Alston & Bird LLP**

**950 F Street, N.W.**

**Washington, DC 20004-1404**

**202-239-3463**

**(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)**

**January 27, 2017**

**(Date of Event Which Requires Filing of this Statement)**

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box .

\* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be filed for the purpose of section 18 of the Securities Exchange Act of 1934 ( Act ) or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1 NAMES OF REPORTING PERSONS

Boxer Capital, LLC

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS (See Instructions)

WC

5 CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

7 SOLE VOTING POWER

NUMBER OF

SHARES

0

BENEFICIALLY

8 SHARED VOTING POWER

OWNED BY

EACH

1,347,963\*

9 SOLE DISPOSITIVE POWER

REPORTING

PERSON

0

WITH

10 SHARED DISPOSITIVE POWER

1,347,963\*

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,347,963\*  
12 CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

5.3%\*\*  
14 TYPE OF REPORTING PERSON (See Instructions)

OO

\* This number includes 189,780 shares of Common Stock that Boxer Capital has the right to acquire pursuant to the Boxer 2012 Warrant and 120,189 shares of Common Stock that Boxer Capital has the right to acquire pursuant to the Boxer 2017 Warrant.

\*\* Based on 25,390,481 shares of Common Stock outstanding which is the sum of (i) 24,926,707 shares of Common Stock reported to be outstanding following the January 2017 Offering according to the Issuer's Prospectus Supplement filed with the SEC on January 9, 2017, including 652,526 shares sold to the underwriter upon the exercise of the underwriter's over-allotment option, (ii) 189,780 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, (iii) 78,186 shares of Common Stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant, (iv) 120,189 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2017 Warrant, and (v) 75,619 shares of Common Stock subject to options exercisable within the next 60 days.

CUSIP No. 60468T105

SCHEDULE 13D/A

1 NAMES OF REPORTING PERSONS

Boxer Asset Management Inc.

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS (See Instructions)

WC

5 CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION

Bahamas

NUMBER OF 7 SOLE VOTING POWER

SHARES

BENEFICIALLY 0

8 SHARED VOTING POWER

OWNED BY

EACH

REPORTING 9 1,347,963\* SOLE DISPOSITIVE POWER

PERSON

WITH 0

10 SHARED DISPOSITIVE POWER

1,347,963\*

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,347,963\*

12 CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

5.3%\*\*

14 TYPE OF REPORTING PERSON (See Instructions)

CO

\* This number includes 189,780 shares of Common Stock that Boxer Capital has the right to acquire pursuant to the Boxer 2012 Warrant and 120,189 shares of Common Stock that Boxer Capital has the right to acquire pursuant to the Boxer 2017 Warrant.

\*\* Based on 25,390,481 shares of Common Stock outstanding which is the sum of (i) 24,926,707 shares of Common Stock reported to be outstanding following the January 2017 Offering according to the Issuer's Prospectus Supplement filed with the SEC on January 9, 2017, including 652,526 shares sold to the underwriter upon the exercise of the underwriter's over-allotment option, (ii) 189,780 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, (iii) 78,186 shares of Common Stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant, (iv) 120,189 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2017 Warrant, and (v) 75,619 shares of Common Stock subject to options exercisable within the next 60 days.

CUSIP No. 60468T105

SCHEDULE 13D/A

1 NAMES OF REPORTING PERSONS

MVA Investors, LLC

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS (See Instructions)

WC

5 CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

NUMBER OF 7 SOLE VOTING POWER

SHARES

BENEFICIALLY 513,630\*

8 SHARED VOTING POWER

OWNED BY

EACH

0

REPORTING 9 SOLE DISPOSITIVE POWER

PERSON

WITH 513,630\*

10 SHARED DISPOSITIVE POWER

0

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

513,630\*

12 CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

2.0%\*\*

14 TYPE OF REPORTING PERSON (See Instructions)

OO

\* This number includes 78,186 shares of Common Stock that MVA Investors, LLC has the right to acquire pursuant to the MVA 2012 Warrant.

\*\* Based on 25,390,481 shares of Common Stock outstanding which is the sum of (i) 24,926,707 shares of Common Stock reported to be outstanding following the January 2017 Offering according to the Issuer's Prospectus Supplement filed with the SEC on January 9, 2017, including 652,526 shares sold to the underwriter upon the exercise of the underwriter's over-allotment option, (ii) 189,780 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, (iii) 78,186 shares of Common Stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant, (iv) 120,189 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2017 Warrant, and (v) 75,619 shares of Common Stock subject to options exercisable within the next 60 days.

CUSIP No. 60468T105

SCHEDULE 13D/A

1 NAMES OF REPORTING PERSONS

Braslyn Ltd.

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS (See Instructions)

WC

5 CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION

Bahamas

NUMBER OF 7 SOLE VOTING POWER

SHARES

BENEFICIALLY 0

8 SHARED VOTING POWER

OWNED BY

EACH

2,880,702

REPORTING 9 SOLE DISPOSITIVE POWER

PERSON

WITH 0

10 SHARED DISPOSITIVE POWER

2,880,702

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

2,880,702

12 CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

11.3%\*

14 TYPE OF REPORTING PERSON (See Instructions)

CO

\* Based on 25,390,481 shares of Common Stock outstanding which is the sum of (i) 24,926,707 shares of Common Stock reported to be outstanding following the January 2017 Offering according to the Issuer's Prospectus Supplement filed with the SEC on January 9, 2017, including 652,526 shares sold to the underwriter upon the exercise of the underwriter's over-allotment option, (ii) 189,780 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, (iii) 78,186 shares of Common Stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant, (iv) 120,189 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2017 Warrant, and (v) 75,619 shares of Common Stock subject to options exercisable within the next 60 days.

CUSIP No. 60468T105

SCHEDULE 13D/A

1 NAMES OF REPORTING PERSONS

Aaron I. Davis

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS (See Instructions)

OO

5 CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION

United States of America

NUMBER OF 7 SOLE VOTING POWER

SHARES

BENEFICIALLY 87,052

8 SHARED VOTING POWER

OWNED BY

EACH

0

REPORTING 9 SOLE DISPOSITIVE POWER

PERSON

WITH 87,052

10 SHARED DISPOSITIVE POWER

0

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

87,052

12 CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

0.3%\*

14 TYPE OF REPORTING PERSON (See Instructions)

IN

\* Based on 25,390,481 shares of Common Stock outstanding which is the sum of (i) 24,926,707 shares of Common Stock reported to be outstanding following the January 2017 Offering according to the Issuer's Prospectus Supplement filed with the SEC on January 9, 2017, including 652,526 shares sold to the underwriter upon the exercise of the underwriter's over-allotment option, (ii) 189,780 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, (iii) 78,186 shares of Common Stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant, (iv) 120,189 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2017 Warrant, and (v) 75,619 shares of Common Stock subject to options exercisable within the next 60 days.

CUSIP No. 60468T105

SCHEDULE 13D/A

1 NAMES OF REPORTING PERSONS

Shehan B. Dissanayake

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS (See Instructions)

OO

5 CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION

United States of America

NUMBER OF 7 SOLE VOTING POWER

SHARES

BENEFICIALLY 77,038

8 SHARED VOTING POWER

OWNED BY

EACH

0

REPORTING 9 SOLE DISPOSITIVE POWER

PERSON

WITH 77,038

10 SHARED DISPOSITIVE POWER

0

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

77,038

12 CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

0.3%\*

14 TYPE OF REPORTING PERSON (See Instructions)

IN

\* Based on 25,390,481 shares of Common Stock outstanding which is the sum of (i) 24,926,707 shares of Common Stock reported to be outstanding following the January 2017 Offering according to the Issuer's Prospectus Supplement filed with the SEC on January 9, 2017, including 652,526 shares sold to the underwriter upon the exercise of the underwriter's over-allotment option, (ii) 189,780 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, (iii) 78,186 shares of Common Stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant, (iv) 120,189 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2017 Warrant, and (v) 75,619 shares of Common Stock subject to options exercisable within the next 60 days.

CUSIP No. 60468T105

SCHEDULE 13D/A

1 NAMES OF REPORTING PERSONS

Christopher Fuglesang

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS (See Instructions)

OO

5 CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION

United States of America

NUMBER OF 7 SOLE VOTING POWER

SHARES

BENEFICIALLY 30,518

8 SHARED VOTING POWER

OWNED BY

EACH

0

REPORTING 9 SOLE DISPOSITIVE POWER

PERSON

WITH 30,518

10 SHARED DISPOSITIVE POWER

0

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

30,518

12 CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

0.1%\*

14 TYPE OF REPORTING PERSON (See Instructions)

IN

\* Based on 25,390,481 shares of Common Stock outstanding which is the sum of (i) 24,926,707 shares of Common Stock reported to be outstanding following the January 2017 Offering according to the Issuer's Prospectus Supplement filed with the SEC on January 9, 2017, including 652,526 shares sold to the underwriter upon the exercise of the underwriter's over-allotment option, (ii) 189,780 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, (iii) 78,186 shares of Common Stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant, (iv) 120,189 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2017 Warrant, and (v) 75,619 shares of Common Stock subject to options exercisable within the next 60 days.

CUSIP No. 60468T105

SCHEDULE 13D/A

1 NAMES OF REPORTING PERSONS

Rodney W. Lappe

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS (See Instructions)

OO

5 CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION

United States of America

NUMBER OF 7 SOLE VOTING POWER

SHARES

BENEFICIALLY 88,282\*

8 SHARED VOTING POWER

OWNED BY

EACH

0

REPORTING 9 SOLE DISPOSITIVE POWER

PERSON

WITH

88,282\*

10 SHARED DISPOSITIVE POWER

0

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

88,282\*

12 CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

0.4%\*\*

14 TYPE OF REPORTING PERSON (See Instructions)

IN

\* This number includes 75,619 shares of Common Stock that Rodney W. Lappe has the right to acquire pursuant to stock options.

\*\* Based on 25,390,481 shares of Common Stock outstanding which is the sum of (i) 24,926,707 shares of Common Stock reported to be outstanding following the January 2017 Offering according to the Issuer's Prospectus Supplement filed with the SEC on January 9, 2017, including 652,526 shares sold to the underwriter upon the exercise of the underwriter's over-allotment option, (ii) 189,780 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, (iii) 78,186 shares of Common Stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant, (iv) 120,189 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2017 Warrant, and (v) 75,619 shares of Common Stock subject to options exercisable within the next 60 days.

CUSIP No. 60468T105

SCHEDULE 13D/A

1 NAMES OF REPORTING PERSONS

Ivan M. Lieberburg

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS (See Instructions)

OO

5 CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION

United States of America

NUMBER OF 7 SOLE VOTING POWER

SHARES

BENEFICIALLY 37,241

8 SHARED VOTING POWER

OWNED BY

EACH

0

REPORTING 9 SOLE DISPOSITIVE POWER

PERSON

WITH 37,241

10 SHARED DISPOSITIVE POWER

0

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

37,241

12 CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

0.2%\*

14 TYPE OF REPORTING PERSON (See Instructions)

IN

\* Based on 25,390,481 shares of Common Stock outstanding which is the sum of (i) 24,926,707 shares of Common Stock reported to be outstanding following the January 2017 Offering according to the Issuer's Prospectus Supplement filed with the SEC on January 9, 2017, including 652,526 shares sold to the underwriter upon the exercise of the underwriter's over-allotment option, (ii) 189,780 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, (iii) 78,186 shares of Common Stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant, (iv) 120,189 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2017 Warrant, and (v) 75,619 shares of Common Stock subject to options exercisable within the next 60 days.

CUSIP No. 60468T105

SCHEDULE 13D/A

1 NAMES OF REPORTING PERSONS

Neil Reisman

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS (See Instructions)

OO

5 CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION

United States of America

NUMBER OF 7 SOLE VOTING POWER

SHARES

BENEFICIALLY 13,131

8 SHARED VOTING POWER

OWNED BY

EACH

0

REPORTING 9 SOLE DISPOSITIVE POWER

PERSON

WITH 13,131

10 SHARED DISPOSITIVE POWER

0

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

13,131

12 CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

0.1%\*

14 TYPE OF REPORTING PERSON (See Instructions)

IN

\* Based on 25,390,481 shares of Common Stock outstanding which is the sum of (i) 24,926,707 shares of Common Stock reported to be outstanding following the January 2017 Offering according to the Issuer's Prospectus Supplement filed with the SEC on January 9, 2017, including 652,526 shares sold to the underwriter upon the exercise of the underwriter's over-allotment option, (ii) 189,780 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, (iii) 78,186 shares of Common Stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant, (iv) 120,189 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2017 Warrant, and (v) 75,619 shares of Common Stock subject to options exercisable within the next 60 days.

CUSIP No. 60468T105

SCHEDULE 13D/A

1 NAMES OF REPORTING PERSONS

Joe Lewis

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS (See Instructions)

WC

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION

United Kingdom

NUMBER OF 7 SOLE VOTING POWER

SHARES

BENEFICIALLY 0

8 SHARED VOTING POWER

OWNED BY

EACH

4,228,665\*

REPORTING 9 SOLE DISPOSITIVE POWER

PERSON

WITH 0

10 SHARED DISPOSITIVE POWER

4,228,665\*

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

4,228,665\*

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

16.7%\*\*

14 TYPE OF REPORTING PERSON (See Instructions)

IN

\* This number includes 189,780 shares of Common Stock that Boxer Capital has the right to acquire pursuant to the Boxer 2012 Warrant and 120,189 shares of Common Stock that Boxer Capital has the right to acquire pursuant to the Boxer 2017 Warrant.

\*\* Based on 25,390,481 shares of Common Stock outstanding which is the sum of (i) 24,926,707 shares of Common Stock reported to be outstanding following the January 2017 Offering according to the Issuer's Prospectus Supplement filed with the SEC on January 9, 2017, including 652,526 shares sold to the underwriter upon the exercise of the underwriter's over-allotment option, (ii) 189,780 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, (iii) 78,186 shares of Common Stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant, (iv) 120,189 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2017 Warrant, and (v) 75,619 shares of Common Stock subject to options exercisable within the next 60 days.

CUSIP No. 60468T105

SCHEDULE 13D/A

This Amendment No. 10 ( Amendment No. 10 ) amends and supplements the statement on Schedule 13D filed on November 4, 2013 (the Original Filing ) by Boxer Capital, LLC ( Boxer Capital ), Boxer Asset Management Inc. ( Boxer Management ), MVA Investors, LLC ( MVA Investors ) and Joe Lewis, as amended by Amendment No. 1 filed on February 2, 2015, Amendment No. 2 filed on September 18, 2015, Amendment No. 3 filed on January 6, 2016 ( Amendment No. 3 ), Amendment No. 4 filed on January 15, 2016 ( Amendment No. 4 ), Amendment No. 5 filed on March 17, 2016, Amendment No. 6 filed on June 8, 2016, Amendment No. 7 filed on June 24, 2016, Amendment No. 8 filed on September 28, 2016 and Amendment No. 9 filed on January 10, 2017. Amendment No. 3 was an original filing for Braslyn Ltd. ( Braslyn ). Amendment No. 4 was an original filing for Aaron I. Davis, Shehan B. Dissanayake, Christopher Fuglesang, Rodney W. Lappe, Ivan M. Lieberburg and Neil Reisman. Boxer Capital, Boxer Management, MVA Investors, Braslyn, Joe Lewis, Aaron I. Davis, Shehan B. Dissanayake, Christopher Fuglesang, Rodney W. Lappe and Ivan M. Lieberburg are collectively referred to herein as the Reporting Persons. The Original Filing, as amended, remains in effect except to the extent that it is amended, restated or superseded by information contained in this Amendment No. 10. Capitalized terms used and not defined in this Amendment No. 10 have the meanings set forth in the Original Filing, as amended.

**Item 5. Interest in Securities of the Issuer.**

Item 5 is hereby amended and restated in its entirety as follows:

All percentages are based on 25,390,481 shares of Common Stock outstanding which is the sum of (i) 24,926,707 shares of Common Stock reported to be outstanding following the January 2017 Offering according to the Issuer's Prospectus Supplement filed with the SEC on January 9, 2017, including 652,526 shares sold to the underwriter upon the exercise of the underwriter's over-allotment option, (ii) 189,780 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, (iii) 78,186 shares of Common Stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant, (iv) shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2017 Warrant, and (v) 75,619 shares of Common Stock subject to options exercisable within the next 60 days.

(a) The Reporting Persons may be deemed to beneficially own, in the aggregate, 5,075,557 shares of Common Stock, representing 19.99% of the Issuer's outstanding Common Stock.

Boxer Capital and Boxer Management beneficially own 1,347,963 shares of Common Stock which represents 5.3% of the Issuer's outstanding Common Stock. Braslyn beneficially owns 2,880,702 shares of Common Stock which represents 11.3% of the Issuer's outstanding Common Stock. Joe Lewis beneficially owns 4,228,665 shares of Common Stock which represents 16.7% of the Issuer's outstanding Common Stock. MVA Investors beneficially owns 513,630 shares of Common Stock which represents 2.0% of the Issuer's outstanding Common Stock. Aaron I. Davis beneficially owns 87,052 shares of Common Stock which represents 0.3% of the Issuer's outstanding Common Stock. Shehan B. Dissanayake beneficially owns 77,038 shares of Common Stock which represents 0.3% of the Issuer's outstanding Common Stock. Christopher Fuglesang beneficially owns 30,518 shares of Common Stock which represents 0.1% of the Issuer's outstanding Common Stock. Ivan M. Lieberburg beneficially owns 37,241 shares of Common Stock which represents 0.2% of the Issuer's outstanding Common Stock. Neil Reisman beneficially owns 13,131 shares of Common Stock which represents 0.1% of the Issuer's outstanding Common Stock.

Rodney W. Lappe beneficially owns 88,282 shares of Common Stock, which includes 75,619 shares of Common Stock subject to options exercisable within the next 60 days, and represents 0.4% of the Issuer's outstanding Common Stock.

Edgar Filing: Mirati Therapeutics, Inc. - Form SC 13D/A

The table below reflects options to purchase shares of Common Stock of the Issuer owned by Rodney W. Lappe that are not currently exercisable within the next 60 days:

Grant Date	Number of Non-Vested Options	Vesting Schedule
5/18/2016	1,667	Exercisable in 12 equal monthly installments following the date of grant
9/9/2014	2,667	Exercisable in 36 equal monthly installments following the date of grant

CUSIP No. 60468T105

SCHEDULE 13D/A

The 2012 Warrants represent a right for Boxer Capital and MVA Investors to purchase 189,780 and 78,186 shares of Common Stock, respectively, at an exercise price of \$7.86 (subject to adjustment). The 2012 Warrants are only exercisable to the extent that the holders thereof and their affiliates and joint actors would beneficially own no more than 19.99% of the outstanding Common Stock after exercise.

The 2017 Warrants represent a right for Boxer Capital, MVA Investors and Braslyn to purchase 2,341,786, 51,047 and 4,865,430 shares of Common Stock, respectively. The 2017 Warrants have been pre-paid at a price of \$5.599 per share with exercise price of \$0.001 per share. The 2017 Warrants are only exercisable to the extent that the holders thereof and their affiliates would beneficially own no more than 19.99% of the outstanding Common Stock after exercise.

(b) With respect to any rights or powers to vote, or to direct the vote of, or to dispose of, or direct the disposition of, the Common Stock owned by the Reporting Persons:

(i) Sole power to vote or direct the vote:

MVA Investors has the sole power to vote the 513,630 shares of Common Stock it beneficially owns. Aaron I. Davis has the sole power to vote the 87,052 shares of Common Stock he beneficially owns. Shehan B. Dissanayake has the sole power to vote the 77,038 shares of Common Stock he beneficially owns. Christopher Fuglesang has the sole power to vote the 30,518 shares of Common Stock he beneficially owns. Rodney W. Lappe has the sole power to vote the 88,282 shares of Common Stock he beneficially owns. Ivan M. Lieberburg has the sole power to vote the 37,241 shares of Common Stock he beneficially owns. Neil Reisman has the sole power to vote the 13,131 shares of Common Stock he beneficially owns.

(ii) Shared power to vote or to direct the vote:

Boxer Capital and Boxer Management have shared voting power with respect to the 1,347,963 shares of Common Stock they beneficially own. Braslyn has shared voting power with respect to the 2,880,702 shares of Common Stock it beneficially owns. Joe Lewis has shared voting power with respect to the 4,228,665 shares of Common Stock he beneficially owns.

(iii) Sole power to dispose or direct the disposition of:

MVA Investors has the sole power to dispose of the 513,630 shares of Common Stock it beneficially owns. Aaron I. Davis has the sole power to vote the 87,052 shares of Common Stock he beneficially owns. Shehan B. Dissanayake has the sole power to vote the 77,038 shares of Common Stock he beneficially owns. Christopher Fuglesang has the sole power to vote the 30,518 shares of Common Stock he beneficially owns. Rodney W. Lappe has the sole power to vote the 88,282 shares of Common Stock he beneficially owns. Ivan M. Lieberburg has the sole power to vote the 37,241 shares of Common Stock he beneficially owns. Neil Reisman has the sole power to vote the 13,131 shares of Common Stock he beneficially owns.

(iv) Shared power to dispose or to direct the disposition of:

Boxer Capital and Boxer Management have shared dispositive power with respect to the 1,347,963 shares of Common Stock they beneficially own. Braslyn has shared dispositive power with respect to the 2,880,702 shares of Common Stock it beneficially owns. Joe Lewis has shared voting power with respect to the 4,228,665 shares of Common Stock he beneficially owns.

(c) Other than as described herein and in Amendment No. 9, the Reporting Persons have not engaged in any transaction in the Common Stock in the past 60 days.

(d) No other person has the right to receive or the power to direct the receipt of dividends, or proceeds of sale of such securities outlined in this report.

(e) Not applicable.

CUSIP No. 60468T105

SCHEDULE 13D/A

**Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.**

Except as otherwise described in the Original Filing, as amended, there are no contracts, arrangements, understandings or relationships (legal or otherwise) among the persons named in Item 2 and between such persons and any person with respect to any securities of the Issuer, including, but not limited to, transfer or voting of any of the securities, finder's fees, joint ventures, loan or option arrangements, puts or calls, guarantees of profits, division of profits or loss, or the giving or withholding of proxies

**Item 7. Material to Be Filed as Exhibits.**

- Exhibit 1 Joint Filing Agreement, dated January 15, 2016, among Boxer Capital, Boxer Management, Braslyn, MVA Investors, Joe Lewis, Aaron I. Davis, Shehan B. Dissanayake, Christopher Fuglesang, Peter E. Harwin, Rodney W. Lappe, Ivan M. Lieberburg, Neil Reisman and William N. Harwin 2012 Gift Trust F/B/O Peter Harwin, which is incorporated by reference to Exhibit 1 to Amendment No. 4
- Exhibit 2 Form of Securities Purchase Agreement relating to the 2012 Private Placement, which is incorporated herein by reference to Exhibit 10.2 to the Form 10 filed by the Issuer on May 10, 2013
- Exhibit 3 Form of Warrant Certificate issued in connection with the 2012 Private Placement, which is incorporated herein by reference to Exhibit 10.4 to the Form 10 filed by the Issuer on May 10, 2013
- Exhibit 4 Form of Warrant to Purchase Common Stock issued in connection with the January 2017 Offering, which is incorporated herein by reference to Exhibit 4.1 to the Form 8-K filed by the Issuer on January 6, 2017.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: January 30, 2017

BOXER CAPITAL, LLC

By: /s/Aaron I. Davis  
Name: Aaron I. Davis  
Title: Authorized Signatory

BOXER ASSET MANAGEMENT INC.

By: /s/ Jefferson R. Voss  
Name: Jefferson R. Voss  
Title: Director

BRASLYN LTD.

By: /s/ Jefferson R. Voss  
Name: Jefferson R. Voss  
Title: Authorized Signatory

MVA INVESTORS, LLC

By: /s/ Aaron I. Davis  
Name: Aaron I. Davis  
Title: Authorized Signatory

JOSEPH C. LEWIS

By: /s/ Joseph C. Lewis  
Joseph C. Lewis, Individually

RODNEY W. LAPPE

By: /s/ Rodney W. Lappe  
Rodney W. Lappe, Individually

IVAN M. LIEBERBURG

By: /s/ Ivan. M. Lieberburg  
Ivan M. Lieberburg, Individually

AARON I. DAVIS

By: /s/ Aaron I. Davis

Aaron I. Davis, Individually

NEIL REISMAN

By: /s/ Neil Reisman  
Neil Reisman, Individually

CUSIP No. 60468T105

SCHEDULE 13D/A

SHEHAN B. DISSANAYAKE

By: /s/ Shehan B. Dissanayake  
Shehan B. Dissanayake, Individually

CHRISTOPHER FUGLESANG

By: /s/ Christopher Fuglesang  
Christopher Fuglesang, Individually

**EXHIBIT INDEX**

- Exhibit 1 Joint Filing Agreement, dated January 15, 2016, among Boxer Capital, Boxer Management, Braslyn, MVA Investors, Joe Lewis, Aaron I. Davis, Shehan B. Dissanayake, Christopher Fuglesang, Peter E. Harwin, Rodney W. Lappe, Ivan M. Lieberburg, Neil Reisman and William N. Harwin 2012 Gift Trust F/B/O Peter Harwin, which is incorporated by reference to Exhibit 1 to Amendment No. 4
- Exhibit 2 Form of Securities Purchase Agreement relating to the 2012 Private Placement, which is incorporated herein by reference to Exhibit 10.2 to the Form 10 filed by the Issuer on May 10, 2013
- Exhibit 3 Form of Warrant Certificate issued in connection with the 2012 Private Placement, which is incorporated herein by reference to Exhibit 10.4 to the Form 10 filed by the Issuer on May 10, 2013
- Exhibit 4 Form of Warrant to Purchase Common Stock issued in connection with the January 2017 Offering, which is incorporated herein by reference to Exhibit 4.1 to the Form 8-K filed by the Issuer on January 6, 2017.